HOMA Pump Technology Inc.

Closed Circuit Cooling System

The Closed Circuit Cooling System

The HOMA Closed Circuit Cooling System for submersible motors is designed for partially submerged wet pit or dry pit pump installations.

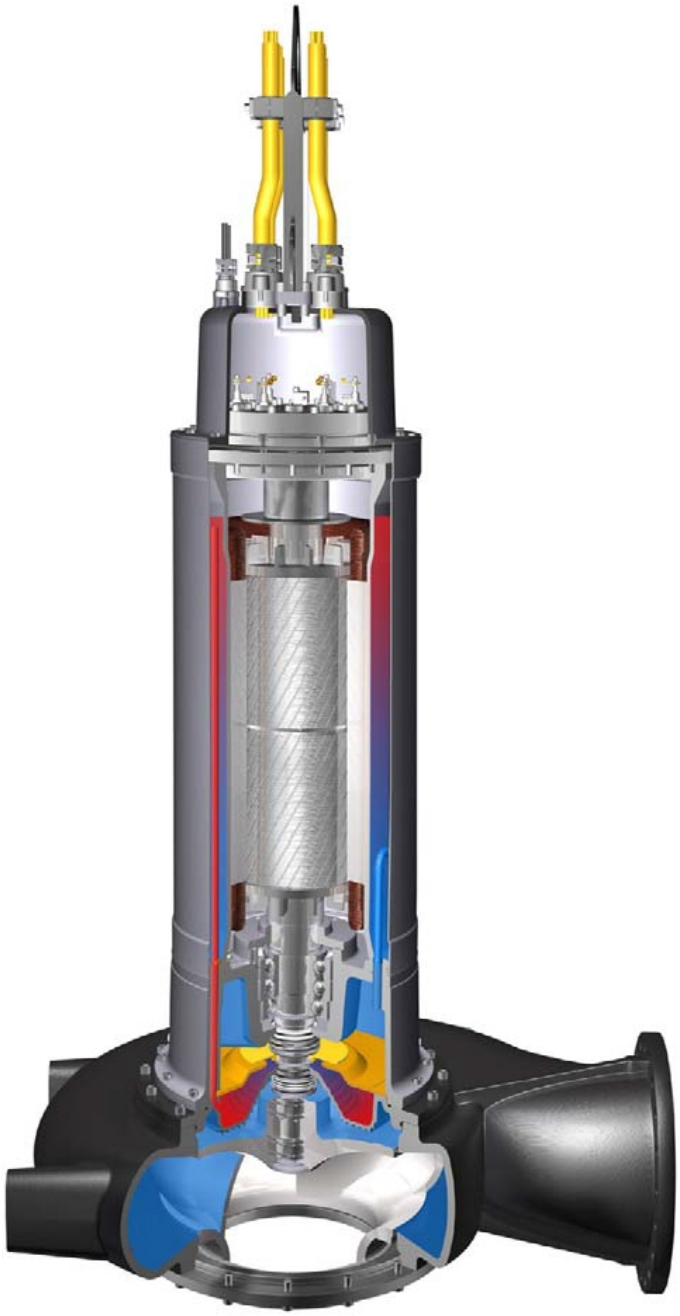
The liquid cooling system design does not allow the pumped liquid to enter the cooling circuit.

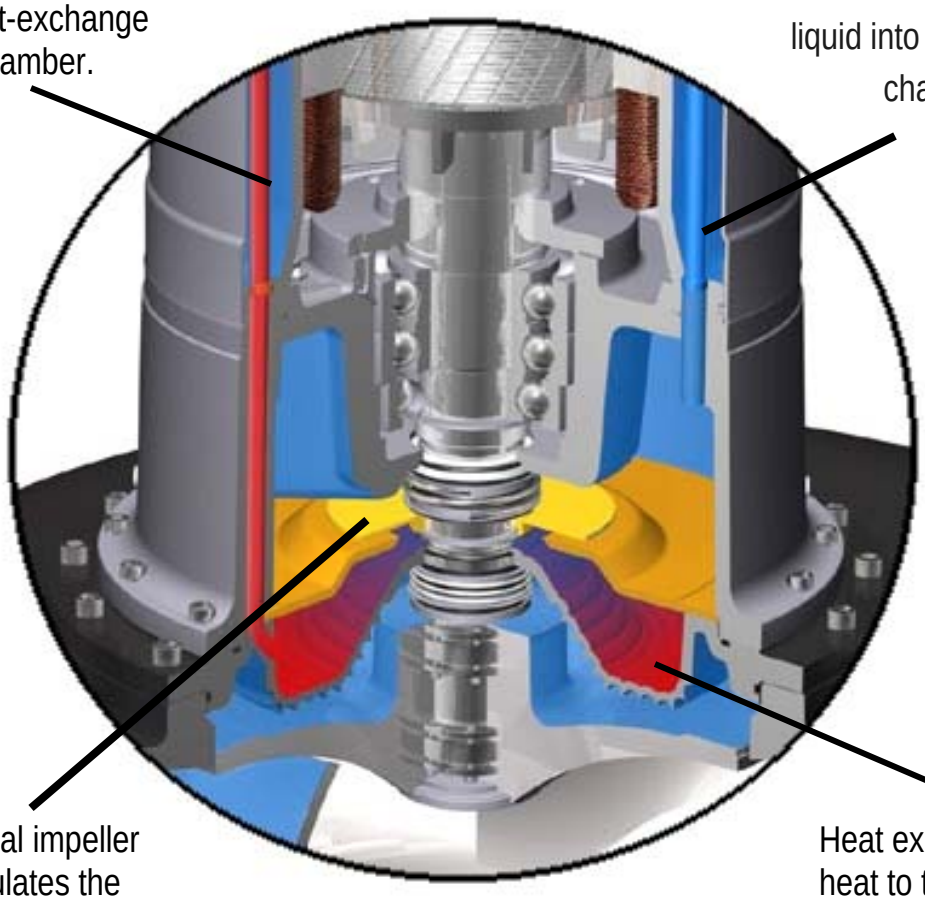
Motor cooling is provided by the stainless steel cooling jacket, which surrounds the stator housing. The jacket is filled with cooling liquid, a water/glycol mixture, to remove heat from the stator winding.

Cooling liquid circulates between the motor cooling jacket chamber and heat exchange chamber, driven by a small impeller on the rotor shaft between the two mechanical seals.

Heat exchange is provided through the contact surface between the heat exchange chamber and the pump chamber. The contact flange is spiral-shaped for a larger surface area in order to provide maximum efficiency of heat exchange.

The HOMA closed circuit cooling system is available for all HOMA AMX, AVX, and AKX series waste water pumps.





How it Works – A Closer Look

This design uses a sealed coolant circuit that contains a non toxic heat transfer fluid. Cool heat transfer fluid is pumped through a chamber formed by a jacket surrounding the motor housing. Warm liquid is then returned to the internal heat exchange chamber, and the fluid is cooled by passing over a heat exchanger surface located above the impeller. This design does not allow any pumped fluid to enter the cooling jacket.